What is claimed is:

1. A method for determining a dynamical quantity of a receiver of signals conveying information useful in estimating the dynamical quantity, the method comprising the steps of:

a) providing a single-point solution, by solving for the dynamical quantity of the receiver using a single-point solution having as an input the information useful in estimating the dynamical quantity being determined;

b) providing a plurality of different motion models for modeling the motion of the receiver; and

c) providing a first value of the dynamical quantity formed by combining one or more filter solutions each based on a different one of the motion models, the combining based on weights that take into account the likelihood of the suitability of each motion model, with the likelihood determined on the basis of agreement of the first value of the dynamical quantity compared with a second value of the dynamical quantity as indicated by a single-point solution.

2. The method of claim 1, wherein at least one of the filter solutions is provided by an ordinary Kalman filter for which no linearizing of the measurement update equations of the Kalman filter is performed.

3. The method of claim 1, wherein the dynamical quantity is determined on the basis of at least one satellite.

4. The method of claim 1, wherein the dynamical quantity is determined on the basis of a cellular network.

5. The method of claim 1, wherein the dynamical quantity is determined on the basis of at least one motion sensor.

6. An apparatus for determining a dynamical quantity of a receiver of signals conveying information useful in estimating the dynamical quantity, the apparatus comprising:

a) means for providing a single-point solution, by solving for the dynamical quantity of the receiver using a single-point solution having as an input the information useful in estimating the dynamical quantity being determined;

b) means for providing a plurality of different motion models for modeling the motion of the receiver; and

c) means for providing a first value of the dynamical quantity formed by combining one or more filter solutions each based on a different one of the motion models, the combining based on weights that take into account the likelihood of the suitability of each motion model, with the likelihood determined on the basis of agreement of the first value of the dynamical quantity compared with a second value of the dynamical quantity as indicated by a single-point solution.

7. The apparatus of claim 6, wherein at least one of the filter solutions is provided by an ordinary Kalman filter for which no linearizing of the measurement update equations of the Kalman filter is performed.

8. The apparatus of claim 6, wherein the dynamical quantity is determined on the basis of at least one satellite.

9. The apparatus of claim 6, wherein the dynamical quantity is determined on the basis of a cellular network.

10. The apparatus of claim 6, wherein the dynamical quantity is determined on the basis of at least motion sensor.

11. A system for determining a dynamical quantity of a component receiver of signals conveying information useful in estimating the dynamical quantity, the system comprising:

a receiver, including:

a) means for providing a single-point solution, by solving for the dynamical quantity of the receiver using a single-point solution having as an input the information useful in estimating the dynamical quantity being determined;

b) means for providing a plurality of different motion models for modeling the motion of the receiver; and

c) means for providing a first value of the dynamical quantity formed by combining one or more filter solutions each based on a different one of the motion models, the combining based on weights that take into account the likelihood of the suitability of each motion model, with the likelihood determined on the basis of agreement of the first value of the dynamical quantity compared with a second value of the dynamical quantity as indicated by a single-point solution.

12. The system of claim 11, the system further comprising an external computing facility, not hosted by the receiver, and coupled to the receiver via wireless communications enabled by a cellular communication system, wherein at least some of the computation of either the single-point solution or the one or more filter solutions is performed in the external computing facility and communicated to the receiver via wireless communication.

13. The system of claim 12, wherein at least one of the filter solutions is provided by an ordinary Kalman filter for which no linearizing of the measurement update equations of the Kalman filter is performed.

14. The system of claim 12, wherein the dynamical quantity is determined on the basis of at least one satellite.

15. The system of claim 12, wherein the dynamical quantity is determined on the basis of a cellular network.

16. The system of claim 12, wherein the dynamical quantity is determined on the basis of at least one motion sensor.

17. The system of claim 11, wherein at least one of the filter solutions is provided by an ordinary Kalman filter for which no linearizing of the measurement update equations of the Kalman filter is performed.

18. The system of claim 11, wherein the dynamical quantity is determined on the basis of at least one satellite.

19. The system of claim 11, wherein the dynamical quantity is determined on the basis of a cellular network.

20. The system of claim 11, wherein the dynamical quantity is determined on the basis of at least one motion sensor.

21. A method for determining a dynamical quantity of a receiver of signals conveying information useful in estimating the dynamical quantity, the method comprising the steps of:

a) providing a single-point solution, by solving for the dynamical quantity of the receiver using a single-point solution having as an input the information useful in estimating the dynamical quantity being determined;

b) providing a plurality of filter solutions each assuming a different motion model for the receiver; and

c) combining the plurality of filter solutions to provide a first value of the dynamical quantity based on weights that take into account the likelihood of the suitability of each motion model, with the likelihood determined on the basis of agreement of the first value of the dynamical quantity compared with a second value of the dynamical quantity as indicated by a single-point solution.

22. The method of claim 21, wherein each predictive filter is an ordinary Kalman filter for which no linearizing of the measurement update equations of the Kalman filter is performed.

23. The method of claim 21, wherein the dynamical quantity being determined is a quantity comprising one or more unknowns with respect to the receiver selected from the set consisting of: clock bias, position, clock drift, velocity, clock jerk, and acceleration.

24. An apparatus for determining a dynamical quantity of a host receiver of signals conveying information useful in estimating the dynamical quantity, the apparatus comprising:

a) means for providing a single-point solution, by solving for the dynamical quantity of the receiver using a single-point solution having as an input the information useful in estimating the dynamical quantity being determined;

b) means for providing a plurality of filter solutions each assuming a different motion model for the receiver; and

c) means for combining the plurality of filter solutions to provide a first value of the dynamical quantity based on weights that take into account the likelihood of the suitability of each motion model, with the likelihood determined on the basis of agreement of the first value of the dynamical quantity compared with a second value of the dynamical quantity as indicated by a single-point solution.

25. The apparatus of claim 24, wherein each predictive filter is an ordinary Kalman filter for which no linearizing of the measurement update equations of the Kalman filter is performed.

26. The apparatus of claim 24, wherein the dynamical quantity being determined is a quantity comprising one or more unknowns with respect to the receiver selected from the set consisting of: clock bias, position, clock drift, velocity, clock jerk, and acceleration.

27. A system for determining a dynamical quantity of a component receiver of signals conveying information useful in estimating the dynamical quantity, the system comprising:

a receiver, including:

a) means for providing a single-point solution, by solving for the dynamical quantity of the receiver using a single-point solution having as an input the information useful in estimating the dynamical quantity being determined;

b) means for providing a plurality of filter solutions each assuming a different motion model for the receiver; and

c) means for combining the plurality of filter solutions to provide a first value of the dynamical quantity based on weights that take into account the likelihood of the suitability of each motion model, with the likelihood determined on the basis of agreement of the first value of the dynamical quantity compared with a second value of the dynamical quantity as indicated by a single-point solution.

28. The system of claim 27, the system further comprising an external computing facility, not hosted by the receiver, and coupled to the receiver via wireless communications enabled by a cellular communication system, wherein at least some of the computation of either the single-point solution or the predictive filters is performed in the external computing facility and communicated to the receiver via wireless communication.

29. The system of claim 28, wherein each predictive filter is an ordinary Kalman filter for which no linearizing of the measurement update equations of the Kalman filter is performed.

30. The system of claim 28, wherein the dynamical quantity being determined is a quantity comprising one or more unknowns with respect to the receiver selected from the set consisting of: clock bias, position, clock drift, velocity, clock jerk, and acceleration.

31. The system of claim 27, the system further comprising at least one satellite for providing the signals conveying information useful in estimating the dynamical quantity.

32. The system of claim 31, wherein each predictive filter is an ordinary Kalman filter for which no linearizing of the

measurement update equations of the Kalman filter is performed.

33. The system of claim 31, wherein the dynamical quantity being determined is a quantity comprising one or more unknowns with respect to the receiver selected from the set consisting of: clock bias, position, clock drift, velocity, clock jerk, and acceleration.